

```

1 #delimit ;
2
3 capture clear all ;
4 capture log close ;
5
6 log using "... \program2--forecast SES.log", replace ;
7
8 use "... \program1--prepare data.dta", clear ;
9
10 *** recode ***;
11
12 recode _mj 0=0 1/10=1, gen(imputed) ;
13
14 foreach l in m f { ;
15 foreach p in mom dad { ;
16 recode `l'1 `p' edu .=1 1/4=0, gen(`l'1 `p' msed) ;
17 recode `l'1 `p' _edu 1=1 2/4=0, gen(`l'1 `p' _lths) ;
18 recode `l'1 `p' _edu 1=0 2=1 3/4=0, gen(`l'1 `p' _hs) ;
19 recode `l'1 `p' _edu 1/2=0 3=1 4=0, gen(`l'1 `p' _mths) ;
20 recode `l'1 `p' _edu 1/3=0 4=1, gen(`l'1 `p' _cg) ;
21 foreach v in `l'1 `p' _lths `l'1 `p' _hs `l'1 `p' _mths `l'1 `p' _cg { ;
22 replace `v'=0 if `v'==. ;
23 } ; } ; } ;
24
25 foreach l in m f { ;
26 recode `l'1_hshld_inc .=1 1/999=0, gen(`l'1_miss_hhinc) ;
27 replace `l'1_hshld_inc = 0 if `l'1_hshld_inc==. ;
28 recode `l'1_dad_sei .=1 1/999=0, gen(`l'1_miss_dsei) ;
29 replace `l'1_dad_sei = 0 if `l'1_dad_sei==. ;
30 recode `l'3_ahpvt .=1 1/999=0, gen(`l'3_miss_ahpvt) ;
31 replace `l'3_ahpvt = 0 if `l'3_ahpvt==. ;
32 recode `l'3_sei .=1 1/999=0, gen(`l'3_miss_sei) ;
33 replace `l'3_sei = 0 if `l'3_sei==. ;
34 } ;
35
36 *** for men ***;
37
38 replace m4_inc=0 if m4_inc<0 ;
39
40 gen m4_ln_inc = ln(m4_inc+1) if m4_inc~=. ;
41
42 pwcorr m4_inc m4_ln_inc m3_ee_cgrdp m3_ahpvt m3_ln_inc m1_dad_sei, sig ;
43
44 reg m4_inc m3_ee_cgrdp m3_ahpvt m1_dad_sei m3_black m3_hisp m3_other m3_bmi_3 m3_physatt
m3_peratt m3_groomed m3_calcage3 if _mj==0 ;
45 reg m4_ln_inc m3_ee_cgrdp m3_ahpvt m1_dad_sei m3_black m3_hisp m3_other m3_bmi_3 m3_physatt
m3_peratt m3_groomed m3_calcage3 if _mj==0 ;
46 reg m4_ln_inc
47     m3_ee_cgrdp m3_ahpvt m3_miss_ahpvt m3_sei m3_miss_sei
48     m1_dad_sei m1_miss_dsei
49     m1_dad_hs m1_dad_mths m1_dad_cg m1_dad_msed
50     m1_mom_hs m1_mom_mths m1_mom_cg m1_mom_msed
51     m1_hshld_inc m1_miss_hhinc
52     m3_black m3_hisp m3_other m3_calcage3 if _mj==0 ;
53 predict m4_ln_incp ;
54 sum m4_ln_incp ; tab _mj if m4_ln_incp==. ;
55
56 table imputed, contents(mean m4_ln_inc mean m4_ln_incp) ;
57
58 pwcorr m4_ln_inc m4_ln_incp, sig ;
59
60 reg m4_inc
61     m3_ee_cgrdp m3_ahpvt m3_miss_ahpvt m3_sei
62     m1_dad_sei
63     m1_dad_hs m1_dad_mths m1_dad_cg
64     m1_mom_hs m1_mom_mths m1_mom_cg
65     m1_hshld_inc
66     m3_black m3_hisp m3_other m3_calcage3 if f3_partner==1 & _mj>0 ;
67 predict m4_incp ;
68

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69  sum m4_inc m4_incp ;
70
71  replace m4_incp=0 if m4_incp<0 ;
72  sum m4_inc m4_incp ;
73  sum m4_inc m4_incp if _mj==0 ;
74  sum m4_inc m4_incp if _mj>0 ;
75
76  pwcorr m4_inc m4_incp, sig ;
77
78  table imputed, contents(mean m4_inc mean m4_incp) ;
79
80  egen temp1=pctile(m4_inc) if _mj==0, p(10) ;
81  egen temp2=pctile(m4_inc) if _mj==0, p(20) ;
82  egen temp3=pctile(m4_inc) if _mj==0, p(30) ;
83  egen temp4=pctile(m4_inc) if _mj==0, p(40) ;
84  egen temp5=pctile(m4_inc) if _mj==0, p(50) ;
85  egen temp6=pctile(m4_inc) if _mj==0, p(60) ;
86  egen temp7=pctile(m4_inc) if _mj==0, p(70) ;
87  egen temp8=pctile(m4_inc) if _mj==0, p(80) ;
88  egen temp9=pctile(m4_inc) if _mj==0, p(90) ;
89
90  gen      m4_incl0=1  if                m4_inc<=temp1 ;
91  replace m4_incl0=2  if m4_inc>temp1 & m4_inc<=temp2 ;
92  replace m4_incl0=3  if m4_inc>temp2 & m4_inc<=temp3 ;
93  replace m4_incl0=4  if m4_inc>temp3 & m4_inc<=temp4 ;
94  replace m4_incl0=5  if m4_inc>temp4 & m4_inc<=temp5 ;
95  replace m4_incl0=6  if m4_inc>temp5 & m4_inc<=temp6 ;
96  replace m4_incl0=7  if m4_inc>temp6 & m4_inc<=temp7 ;
97  replace m4_incl0=8  if m4_inc>temp7 & m4_inc<=temp8 ;
98  replace m4_incl0=9  if m4_inc>temp8 & m4_inc<=temp9 ;
99  replace m4_incl0=10 if m4_inc>temp9 & m4_inc<. ;
100
101 drop temp* ;
102
103 *tab m4_incl0 ;
104 table m4_incl0, contents(min m4_inc mean m4_inc max m4_inc) ;
105
106 ologit m4_incl0 m3_ee_cgrdp m3_ahpvt m1_dad_sei m3_black m3_hisp m3_other m3_bmi_3
m3_physatt m3_peratt m3_groomed m3_calcage3 if _mj==0 ;
107 ologit m4_incl0
108     m3_ee_cgrdp m3_ahpvt m3_miss_ahpvt
109     m1_dad_sei m1_miss_dsei
110     m1_dad_hs m1_dad_mths m1_dad_cg m1_dad_msed
111     m1_mom_hs m1_mom_mths m1_mom_cg m1_mom_msed
112     m1_hshld_inc m1_miss_hhinc
113     m3_black m3_hisp m3_other m3_calcage3 if _mj==0 ;
114 predict p10 p20 p30 p40 p50 p60 p70 p80 p90 p100 ;
115 sum p10 p20 p30 p40 p50 p60 p70 p80 p90 p100 ;
116
117 gen m4_incl0p=1 if p10~=. & p10>p20 & p10>p30 & p10>p40 & p10>p50 & p10>p60 & p10>p70 &
p10>p80 & p10>p90 & p10>p100 ;
118 replace m4_incl0p=2 if p20~=. & p20>p10 & p20>p30 & p20>p40 & p20>p50 & p20>p60 & p20>p70 &
p20>p80 & p20>p90 & p20>p100 ;
119 replace m4_incl0p=3 if p30~=. & p30>p20 & p30>p10 & p30>p40 & p30>p50 & p30>p60 & p30>p70 &
p30>p80 & p30>p90 & p30>p100 ;
120 replace m4_incl0p=4 if p40~=. & p40>p20 & p40>p30 & p40>p10 & p40>p50 & p40>p60 & p40>p70 &
p40>p80 & p40>p90 & p40>p100 ;
121 replace m4_incl0p=5 if p50~=. & p50>p20 & p50>p30 & p50>p40 & p50>p10 & p50>p60 & p50>p70 &
p50>p80 & p50>p90 & p50>p100 ;
122 replace m4_incl0p=6 if p60~=. & p60>p20 & p60>p30 & p60>p40 & p60>p50 & p60>p10 & p60>p70 &
p60>p80 & p60>p90 & p60>p100 ;
123 replace m4_incl0p=7 if p70~=. & p70>p20 & p70>p30 & p70>p40 & p70>p50 & p70>p60 & p70>p10 &
p70>p80 & p70>p90 & p70>p100 ;
124 replace m4_incl0p=8 if p80~=. & p80>p20 & p80>p30 & p80>p40 & p80>p50 & p80>p60 & p80>p70 &
p80>p10 & p80>p90 & p80>p100 ;
125 replace m4_incl0p=9 if p90~=. & p90>p20 & p90>p30 & p90>p40 & p90>p50 & p90>p60 & p90>p70 &
p90>p80 & p90>p10 & p90>p100 ;
126 replace m4_incl0p=10 if p100~=. & p100>p20 & p100>p30 & p100>p40 & p100>p50 & p100>p60 &
p100>p70 & p100>p80 & p100>p90 & p100>p10 ;
127 tab m4_incl0p ;

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128 drop p10 p20 p30 p40 p50 p60 p70 p80 p90 p100 ;
129
130 pwcrr m4_inc m4_incl0p, sig ;
131
132 gen m4_sei_0to1=m4_sei/93 ;
133 glm m4_sei_0to1
134     m3_ee_cgrdp m3_ahpvt m3_miss_ahpvt m3_sei m3_miss_sei
135     m1_dad_sei m1_miss_dsei
136     m1_dad_hs m1_dad_mths m1_dad_cg m1_dad_msed
137     m1_mom_hs m1_mom_mths m1_mom_cg m1_mom_msed
138     m1_hshld_inc m1_miss_hhinc
139     m3_black m3_hisp m3_other m3_calcage3 if _mj==0, family(gaussian) link(logit) ;
140 predict m4_seip ;
141 replace m4_seip=m4_seip*93 ; sum m4_sei* ;
142 pwcrr m4_sei m4_seip, sig ;
143
144 glm m4_sei_0to1
145     m3_ee_cgrdp m3_ahpvt m3_miss_ahpvt m3_sei m3_miss_sei
146     m1_dad_sei m1_miss_dsei
147     m1_dad_hs m1_dad_mths m1_dad_cg m1_dad_msed
148     m1_mom_hs m1_mom_mths m1_mom_cg m1_mom_msed
149     m1_hshld_inc m1_miss_hhinc
150     m3_black m3_hisp m3_other m3_calcage3 if _mj>0 & f3_partner==1, family(gaussian) link(
logit) ;
151 predict m4_seip_v2 ;
152 replace m4_seip_v2=m4_seip_v2*93 ; sum m4_sei* ;
153 pwcrr m4_sei m4_seip m4_seip_v2, sig ;
154
155 drop m4_seip ; rename m4_seip_v2 m4_seip ;
156
157 ologit m4_edu5
158     m3_ee_cgrdp m3_ahpvt m3_miss_ahpvt
159     m1_dad_sei m1_miss_dsei
160     m1_dad_hs m1_dad_mths m1_dad_cg m1_dad_msed
161     m1_mom_hs m1_mom_mths m1_mom_cg m1_mom_msed
162     m1_hshld_inc m1_miss_hhinc
163     m3_black m3_hisp m3_other m3_calcage3 if _mj==0 ;
164 predict e1 e2 e3 e4 e5 ; sum e1 e2 e3 e4 e5 ;
165 gen m4_edu5p=1 if e1~=. & e1>e2 & e1>e3 & e1>e4 & e1>e5 ;
166 replace m4_edu5p=2 if e1~=. & e2>e1 & e2>e3 & e2>e4 & e2>e5 ;
167 replace m4_edu5p=3 if e1~=. & e3>e1 & e3>e2 & e3>e4 & e3>e5 ;
168 replace m4_edu5p=4 if e1~=. & e4>e1 & e4>e2 & e4>e3 & e4>e5 ;
169 replace m4_edu5p=5 if e1~=. & e5>e1 & e5>e2 & e5>e3 & e5>e4 ;
170 *tab1 m4_edu5 m4_edu5p ;
171 drop e1 e2 e3 e4 e5 ;
172
173 *** for women ***;
174
175 replace f4_inc=0 if f4_inc<0 ;
176
177 gen f4_ln_inc = ln(f4_inc+1) if f4_inc~=. ;
178 egen f4_pct_inc=pctile(f4_inc) ;
179
180 pwcrr f4_inc f4_ln_inc f3_ee_cgrdp f3_ahpvt f3_ln_inc f1_dad_sei, sig ;
181
182 reg f4_inc f3_ee_cgrdp f3_ahpvt f1_dad_sei f3_black f3_hisp f3_other f3_bmi_3 f3_physatt
f3_peratt f3_groomed f3_calcage3 if _mj==0 ;
183 reg f4_ln_inc f3_ee_cgrdp f3_ahpvt f1_dad_sei f3_black f3_hisp f3_other f3_bmi_3 f3_physatt
f3_peratt f3_groomed f3_calcage3 if _mj==0 ;
184 reg f4_ln_inc
185     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt f3_sei f3_miss_sei
186     f1_dad_sei f1_miss_dsei
187     f1_dad_hs f1_dad_mths f1_dad_cg f1_dad_msed
188     f1_mom_hs f1_mom_mths f1_mom_cg f1_mom_msed
189     f1_hshld_inc f1_miss_hhinc
190     f3_black f3_hisp f3_other f3_calcage3 if _mj==0 ;
191 predict f4_ln_incp ;
192
193 pwcrr f4_ln_inc f4_ln_incp, sig ;
194

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195 table imputed, contents(mean f4_ln_inc mean f4_ln_incp) ;
196
197 bysort f3_partner: sum f4_inc f4_sei
198     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt f3_sei
199     f1_dad_sei
200     f1_dad_hs f1_dad_mths f1_dad_cg
201     f1_mom_hs f1_mom_mths f1_mom_cg
202     f1_hshld_inc
203     f3_black f3_hisp f3_other f3_calcage3 ;
204
205 reg f4_inc
206     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt f3_sei
207     f1_dad_sei
208     f1_dad_hs f1_dad_mths f1_dad_cg
209     f1_mom_hs f1_mom_mths f1_mom_cg
210     f1_hshld_inc
211     f3_black f3_hisp f3_other f3_calcage3 if f3_partner==0 & _mj>0 ;
212 predict f4_incp ;
213
214 table imputed if f3_partner==0, contents(mean f4_inc mean f4_incp) ;
215 table imputed, contents(mean f4_inc mean f4_incp) ;
216
217 sum f4_inc f4_incp ;
218 replace f4_incp=0 if f4_incp<0 ;
219 sum f4_inc f4_incp ;
220 sum f4_inc f4_incp if _mj==0 ;
221 sum f4_inc f4_incp if _mj>0 ;
222
223 pwcorr f4_inc f4_incp, sig ;
224
225 egen temp1=pctile(f4_inc) if _mj==0, p(10) ;
226 egen temp2=pctile(f4_inc) if _mj==0, p(20) ;
227 egen temp3=pctile(f4_inc) if _mj==0, p(30) ;
228 egen temp4=pctile(f4_inc) if _mj==0, p(40) ;
229 egen temp5=pctile(f4_inc) if _mj==0, p(50) ;
230 egen temp6=pctile(f4_inc) if _mj==0, p(60) ;
231 egen temp7=pctile(f4_inc) if _mj==0, p(70) ;
232 egen temp8=pctile(f4_inc) if _mj==0, p(80) ;
233 egen temp9=pctile(f4_inc) if _mj==0, p(90) ;
234
235 gen     f4_incl0=1 if f4_inc<=temp1 ;
236 replace f4_incl0=2 if f4_inc>temp1 & f4_inc<=temp2 ;
237 replace f4_incl0=3 if f4_inc>temp2 & f4_inc<=temp3 ;
238 replace f4_incl0=4 if f4_inc>temp3 & f4_inc<=temp4 ;
239 replace f4_incl0=5 if f4_inc>temp4 & f4_inc<=temp5 ;
240 replace f4_incl0=6 if f4_inc>temp5 & f4_inc<=temp6 ;
241 replace f4_incl0=7 if f4_inc>temp6 & f4_inc<=temp7 ;
242 replace f4_incl0=8 if f4_inc>temp7 & f4_inc<=temp8 ;
243 replace f4_incl0=9 if f4_inc>temp8 & f4_inc<=temp9 ;
244 replace f4_incl0=10 if f4_inc>temp9 & f4_inc<. ;
245
246 drop temp* ;
247
248 *tab f4_incl0 ;
249 table f4_incl0, contents(min f4_inc mean f4_inc max f4_inc) ;
250
251 ologit f4_incl0 f3_ee_cgrdp f3_ahpvt f1_dad_sei f3_black f3_hisp f3_other f3_bmi_3
f3_physatt f3_peratt f3_groomed f3_calcage3 if _mj==0 ;
252 ologit f4_incl0
253     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt f3_sei f3_miss_sei
254     f1_dad_sei f1_miss_dsei
255     f1_dad_hs f1_dad_mths f1_dad_cg f1_dad_msed
256     f1_mom_hs f1_mom_mths f1_mom_cg f1_mom_msed
257     f1_hshld_inc f1_miss_hhinc
258     f3_black f3_hisp f3_other f3_calcage3 if _mj==0 ;
259 predict p10 p20 p30 p40 p50 p60 p70 p80 p90 p100 ;
260 sum p10 p20 p30 p40 p50 p60 p70 p80 p90 p100 ;
261
262 gen f4_incl0p=1 if p10~=. & p10>p20 & p10>p30 & p10>p40 & p10>p50 & p10>p60 & p10>p70 &
p10>p80 & p10>p90 & p10>p100 ;

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263  replace f4_incl10p=2  if p20~= . & p20>p10 & p20>p30 & p20>p40 & p20>p50 & p20>p60 & p20>p70 &
    p20>p80 & p20>p90 & p20>p100 ;
264  replace f4_incl10p=3  if p30~= . & p30>p20 & p30>p10 & p30>p40 & p30>p50 & p30>p60 & p30>p70 &
    p30>p80 & p30>p90 & p30>p100 ;
265  replace f4_incl10p=4  if p40~= . & p40>p20 & p40>p30 & p40>p10 & p40>p50 & p40>p60 & p40>p70 &
    p40>p80 & p40>p90 & p40>p100 ;
266  replace f4_incl10p=5  if p50~= . & p50>p20 & p50>p30 & p50>p40 & p50>p10 & p50>p60 & p50>p70 &
    p50>p80 & p50>p90 & p50>p100 ;
267  replace f4_incl10p=6  if p60~= . & p60>p20 & p60>p30 & p60>p40 & p60>p50 & p60>p10 & p60>p70 &
    p60>p80 & p60>p90 & p60>p100 ;
268  replace f4_incl10p=7  if p70~= . & p70>p20 & p70>p30 & p70>p40 & p70>p50 & p70>p60 & p70>p10 &
    p70>p80 & p70>p90 & p70>p100 ;
269  replace f4_incl10p=8  if p80~= . & p80>p20 & p80>p30 & p80>p40 & p80>p50 & p80>p60 & p80>p70 &
    p80>p10 & p80>p90 & p80>p100 ;
270  replace f4_incl10p=9  if p90~= . & p90>p20 & p90>p30 & p90>p40 & p90>p50 & p90>p60 & p90>p70 &
    p90>p80 & p90>p10 & p90>p100 ;
271  replace f4_incl10p=10 if p100~= . & p100>p20 & p100>p30 & p100>p40 & p100>p50 & p100>p60 &
    p100>p70 & p100>p80 & p100>p90 & p100>p10 ;
272  drop p10 p20 p30 p40 p50 p60 p70 p80 p90 p100 ;
273  tab f4_incl10p ;
274
275  pwcorr f4_inc f4_incl10p, sig ;
276
277  gen f4_sei_0tol=f4_sei/93 ;
278  glm f4_sei_0tol
279     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt
280     f1_dad_sei f1_miss_dsei
281     f1_dad_hs f1_dad_mths f1_dad_cg f1_dad_msed
282     f1_mom_hs f1_mom_mths f1_mom_cg f1_mom_msed
283     f1_hshld_inc f1_miss_hhinc
284     f3_black f3_hisp f3_other f3_calcage3 if _mj==0, family(gaussian) link(logit) ;
285  predict f4_seip ;
286  replace f4_seip=f4_seip*93 ; sum f4_sei* ;
287  pwcorr f4_sei f4_seip, sig ;
288
289  glm f4_sei_0tol
290     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt
291     f1_dad_sei f1_miss_dsei
292     f1_dad_hs f1_dad_mths f1_dad_cg f1_dad_msed
293     f1_mom_hs f1_mom_mths f1_mom_cg f1_mom_msed
294     f1_hshld_inc f1_miss_hhinc
295     f3_black f3_hisp f3_other f3_calcage3 if _mj>0 & f3_partner==0, family(gaussian) link(
    logit) ;
296  predict f4_seip_v2 ;
297  replace f4_seip_v2=f4_seip_v2*93 ; sum f4_sei* ;
298  pwcorr f4_sei f4_seip f4_seip_v2, sig ;
299
300  table imputed, contents(mean f4_sei mean f4_seip mean f4_seip_v2) ;
301
302  drop f4_seip ;
303  rename f4_seip_v2 f4_seip ;
304
305  ologit f4_edu5
306     f3_ee_cgrdp f3_ahpvt f3_miss_ahpvt
307     f1_dad_sei f1_miss_dsei
308     f1_dad_hs f1_dad_mths f1_dad_cg f1_dad_msed
309     f1_mom_hs f1_mom_mths f1_mom_cg f1_mom_msed
310     f1_hshld_inc f1_miss_hhinc
311     f3_black f3_hisp f3_other f3_calcage3 if _mj==0 ;
312  predict e1 e2 e3 e4 e5 ; sum e1 e2 e3 e4 e5 ;
313  gen f4_edu5p=1  if e1~= . & e1>e2 & e1>e3 & e1>e4 & e1>e5 ;
314  replace f4_edu5p=2  if e2~= . & e2>e1 & e2>e3 & e2>e4 & e2>e5 ;
315  replace f4_edu5p=3  if e3~= . & e3>e1 & e3>e2 & e3>e4 & e3>e5 ;
316  replace f4_edu5p=4  if e4~= . & e4>e1 & e4>e2 & e4>e3 & e4>e5 ;
317  replace f4_edu5p=5  if e5~= . & e5>e1 & e5>e2 & e5>e3 & e5>e4 ;
318  *tab1 f4_edu5 f4_edu5p ;
319  drop e1 e2 e3 e4 e5 ;
320
321  bysort imputed: sum f4_edu5p f4_seip f4_incl10p f4_ln_incp m4_edu5p m4_seip m4_incl10p
    m4_ln_incp ;

```

```
322
323   des, short ;
324
325   save "...\\program2--forecast SES.dta", replace ;
326
327   clear ;
328   log close ;
329
330
```